

In re: Baxter et al.
Serial No.: 09/844,537
Filed: April 27, 2001
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REMARKS

Applicants appreciate the Examiner's thorough examination of the present application as evidenced by the Office Action of July 8, 2003 (hereinafter "Office Action"). Applicants especially appreciate the indication that Claims 6 - 11, 17 - 22, and 28 - 33 recite patentable subject matter. Applicants respectfully submit, however, that the cited reference fails to disclose or suggest all of the recitations of the independent claims. Therefore, Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration of all pending claims is respectfully requested for at least the reasons discussed hereafter.

Drawings

The Office Action states that Applicants are required to submit formal drawings. Applicants previously submitted formal drawings on December 4, 2001. Nevertheless, Applicants submit herewith a new set of formal drawings.

Claims 1 - 33 Satisfy the Requirements of 35 U.S.C. §112

Claims 1 - 33 stand rejected under 35 U.S.C. §112 as being indefinite because independent Claims 1, 12, and 23 recite "detecting the stored command in the database." Applicants respectfully submit that the recitation "detecting the stored command in the database" is not unclear and accurately describes an aspect of the present invention. Referring to FIG. 4 of the present application, the Specification explains that the command table may be configured to provide a queue for commands from the client 36. (Specification, page 8, lines 17 - 19). The Specification describes operations of the Command Interface Module (CIM) 86 as follows:

The CIM 86 may be configured to monitor the command table 62 for commands to process. When the CIM 86 detects a command in the command table 62, the CIM 86 may verify that the detected command is a valid command for the destination controller 38 and may then send the command to the communication driver 88. (Specification, page 9, lines 13 - 17).

Thus, the CIM may detect a command in the command table, retrieve the command, and send the retrieved command to the controller via the communication driver in accordance with some embodiments of the present invention. Accordingly, Applicants respectfully submit that Claims 1, 12, and 23 satisfy the requirements of 35 U.S.C. §112 and respectfully request that the rejection be withdrawn.

Independent Claims 1, 12, and 23 are Patentable over the Cited Reference

Independent Claims 1, 12, and 23 stand rejected under 35 U.S.C. §103 as being unpatentable over U. S. Patent No. 5,923,557 to Eidson (hereinafter "Eidson").

Independent Claims 1, 12, and 23 are directed to methods, systems, and computer program products for communicating with a controller in real-time. For example, Claim 1 recites:

- storing a command for the controller in a database, wherein the command is selected from the group of commands consisting of a write command that is configured to write a value of a real-time process control variable to the controller and a read command that is configured to read a value of a real-time process control variable from the controller;
- detecting the stored command in the database;
- retrieving the stored command from the database responsive to detecting the stored command; and
- sending the retrieved command to the controller.

Claims 12 and 23 include similar recitations.

Thus, according to the recitations of Claims 1, 12, and 23, a write or read command for a controller is stored in a database. The stored command is detected, retrieved, and then sent to the controller. In sharp contrast, Eidson describes an interface to process control devices in which controllers (*e.g.*, controllers 60, 61, and 62) communicate with process control devices (*e.g.*, devices 90, 91, 100, 110, and 112) via mappers (*e.g.*, mappers 70, 71, and 72). (Eidson, col. 3, line 59 - col. 4, line 4). Applicants note that the databases described in Eidson, such as the device-oriented interface database 32 and the device dictionary 38, are used by the mappers 70, 71, and 72 to communicate with the control devices 90, 91, 100, 110,

and 112 using an appropriate device oriented protocol 14. In particular, the device-oriented interface database 32 includes information that describes the process control devices in terms of the device-oriented protocol. (Eidson, col. 4, lines 42 - 47). The device dictionary 38 contains a set of predetermined device-specific information that is tailored in terms of the device-oriented protocol for each process control device supported by a mapper. (Eidson, col. 5, lines 30 - 38). Applicants note that FIG. 3 of Eidson shows a dictionary server 54 that is connected to the communication network 52. This dictionary server 54 is used by the mappers to build device specific information in their respective device-oriented interface databases. (Eidson, col. 10, lines 21 - 29).

Thus, Applicants respectfully submit that none of the databases described in Eidson are used to store a write or read command such that the stored command may be detected, retrieved, and then sent to a controller. Instead, the databases described in Eidson are used along with a mapper to facilitate communication between a controller and process control device(s) using a standard device-oriented interface without regard to the protocols used on the bus on which the process control device(s) reside. (Eidson, col. 9, lines 57 - 61).

For at least the foregoing reasons, Applicants respectfully submit that independent Claims 1, 12, and 23 are patentable over the cited reference and that dependent Claims 2 - 11, 13 - 22, and 24 - 33 are patentable at least by virtue of their depending from an allowable claim.

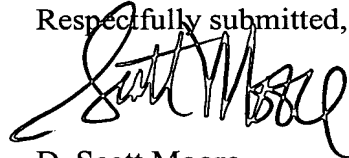
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CONCLUSION

In light of the above remarks, Applicants respectfully submit that the above-entitled application is now in condition for allowance. Favorable reconsideration of this application is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.

It is not believed that an extension of time and/or additional fee(s)-including fees for net addition of claims-are required, beyond those that may otherwise be provided for in documents accompanying this paper. In the event, however, that an extension of time is necessary to allow consideration of this paper, such an extension is hereby petitioned under 37 C.F.R. §1.136(a). Any additional fees believed to be due in connection with this paper may be charged to our Deposit Account No. 50-0220.

Respectfully submitted,

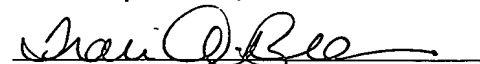


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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on September 25, 2003.


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